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DATE: 05/23/06 FILE NUMBER: KCC 4921 (K-C 16,163)  
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DateType of paper transmitted: Reply BriefApplicant's Name: Peiguang Zhou et al.Serial No.: 09/945,239 Examiner: BoydFiling Date: 08/31/01 Art Unit: 1771 Confirmation No.: 1306Application Title: PRODUCTS FOR CONTROLLING MICROBIAL GENERATED  
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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Peiguang Zhou, et al. Art Unit: 1771  
Serial No.: 09/945,239  
Filed: August 31, 2001  
Confirmation No.: 1306  
For: HOT-MELT ADHESIVE BASED ON BLEND OF AMORPHOUS AND  
CRYSTALLINE POLYMERS FOR MULTILAYER BONDING  
Examiner: Jennifer A. Boyd

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REPLY BRIEF

This is a reply to the Examiner's Answer mailed March 23, 2006.

**Appellants' Comments on the Examiner's Response to Argument**

In response to Appellants' argument that Wang guides one skilled in the art away from combining the adhesives of the Hall et al. reference with the absorbent composites of the Tanzer reference, the Examiner's Response states that Wang only discusses the shortcomings and limitations of atactic polymers and not the blend of atactic and isotactic polymers as claimed by Appellants. As such, the Examiner concludes that Wang should be considered irrelevant as to the blend of atactic and isotactic polymers as claimed by Appellants. Appellants respectfully disagree that Wang is irrelevant as, despite the Examiner's statement, Wang discusses the shortcomings of prior art hot-melt adhesives containing blends of atactic and isotactic polymers.

In the Appeal Brief, Appellants pointed to the passages in column 3, lines 37-47 and column 4, lines 13-19 of the Wang reference, which discuss the disadvantages of using prior art atactic polypropylene based adhesives in disposable nonwoven applications.

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Appellants note that as disclosed in the Wang reference "adhesives based on [atactic polypropylene]"<sup>1</sup> refers to adhesives including atactic polymers alone, as well as adhesives including a blend of atactic and isotactic polymers. Specifically, in Trotter et al., which was cited in column 3, lines 53-59 of Wang as being a prior art adhesive based on atactic polypropylene, the hot melt pressure sensitive adhesive described therein comprises a blend of amorphous polyolefin (i.e., atactic polyolefin), a low molecular weight substantially amorphous elastomer, a liquid tackifying resin, and a crystalline polypropylene (i.e., isotactic polypropylene).<sup>2</sup>

Similarly, a second prior art reference cited in Wang as being based on the undesirable atactic polypropylene, the Kehr et al. reference, discloses an adhesive coating composition comprising an extensively amorphous poly-alpha-olefin and a functionalized graft copolymer of a predominately crystalline propylene polymer. Specifically, as disclosed in Kehr et al., the adhesive composition comprises 90-99.9% (by weight) amorphous poly-alpha-olefin and 0.1-10% (by weight) of a polymer carrying a functional group involving predominately crystalline polyolefins.<sup>3</sup> Furthermore, a third optional component of the adhesive composition of Kehr et al. is an isotactic polypropylene.<sup>4</sup> Additionally, the Meyer et al. reference, cited as a prior art atactic polymer based adhesive in Wang (column 3, line 66 through column 4, line 4), discloses a hot melt adhesive

<sup>1</sup> Wang at column 3, lines 39-41 and column 4, lines 12-19.

<sup>2</sup> See Trotter et al. at column 1, lines 56-62. Furthermore, see Example 1 of Trotter et al., wherein a hot melt sensitive adhesive is produced with 48.25% (by weight) amorphous polypropylene and 1.25% (by weight) crystalline polypropylene.

<sup>3</sup> See Kehr et al. at column 2, lines 6-16 and column 3, lines 4-10.

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composition comprising a blend of polyethylene, amorphous polypropylene, and crystalline propylene.<sup>5</sup>

Based on the foregoing, a close reading of Wang indicates that Wang does disclose the disadvantages of using hot-melt adhesives comprising blends of atactic and isotactic polymers in disposable nonwoven applications. As such, Wang is relevant and the teachings therein away from Appellants' claims must be considered in a determination of obviousness of Appellants' claimed invention. Furthermore, because Wang teaches away from the teachings in Hall et al. of a hot-melt adhesive comprising both atactic polypropylene and isotactic polypropylene, one skilled in the art would not, and could not, have been properly motivated to look at the Hall et al. reference after reading the Wang reference for combination with the absorbent composites of the Tanzer reference.

#### Conclusion

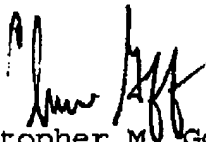
In addition to the reasons set forth in Appellants' Appeal Brief, the rejections of the claims on appeal are in error for the reasons set forth above. Therefore, Appellants request that the Examiner's rejections of claims 24-33 and 70-82 be reversed. Appellants do not believe that any fee is due. However, the Commissioner is hereby authorized to charge any deficiency or overpayment of any fees to Deposit Account No. 19-1345.

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<sup>5</sup> See *id* at column 4, lines 23-27. Furthermore, Table 1 of Kehr et al. discloses both atactic and isotactic polymers for use as ingredients in their adhesive compositions.

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Respectfully submitted,



Christopher M. Goff, Reg. No. 41,785  
SENNIGER POWERS  
One Metropolitan Square, 16th Floor  
St. Louis, Missouri 63102  
(314) 231-5400

CMG/JMB/dhm

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<sup>b</sup> Meyer et al. at column 2, lines 36-41 and Examples 1, 3, and 4.